MS. 9512

With the Medical Officer of Health's Compliments.

Newport Port Sanitary Authority.

Annual Report

For the Year 1931.

BY

THE MEDICAL OFFICER OF HEALTH,
J. HOWARD JONES, M.D., D.Sc., C.M.

COUNTY BOROUGH OF NEWPORT

NEWPORT:
GEORGE BELL, Printer and Manufacturing Stationer,
53 Commercial Street and Bream Place.

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County Borough of Newport.

Health and Port Sanitary Committee, 1931.

Chairman—

Councillor C. T. Clissitt.

Deputy Chairman—

Alderman Col. W. Clifford Phillips.

His Worship the Mayor
(Coun. T. Crowther)
Alderman W. M. Blackburn
,, J. Lloyd Davies
,, T. G. Lewis
,, W. A. Linton
,, Mrs. C. M. Lewcock

Councillor F. Quick
,, F. J. Humphries
,, W. Casey
,, A. Leveson
,, Mrs. E. E. Poole
,, F. Atwell

Clerk to Port Sanitary Authority—

O. Treharne Morgan.

Medical Officer of Health—

J. Howard-Jones, M.D., D.Sc., C M.

Port Sanitary Inspector—

W. J. Jenkins, Cert. Royal Sanitary Institute
(Retired 30th June, 1931).

R. M. Scorrer, Cert. Royal Sanitary Institute*
(Appointed 1st July, 1931).

Assistant Inspector—

J. H. Glass.

Rat Catcher—

C Powell.

Caretaker of Port Sanitary Hospital at Cefn—

A. E. Walker
(Retired 1st August, 1931).

* also Certificate for Inspection of Meat and other foods.

Newport Port Sanitary Authority.

HEALTH DEPARTMENT,
MARKET BUILDINGS, NEWPORT.

To the Chairman and Members of the Newport Port Sanitary Committee.

LADIES AND GENTLEMEN,

I beg to submit my Report for the year 1931. It is made in accordance with the Regulations of the Ministry of Health which are prescribed within the duties of the Medical Officer of Health.

The Port was permanently constituted a Port Sanitary District by the Local Government Board, May 9th, 1883.

I.—Constitution of Port Sanitary Authority :—

> " The Port Sanitary Authority is the Mayor, Aldermen, and Burgesses of the Borough of Newport, acting by the Council. It discharges Port functions in waters abutting upon the Magor and St. Mellons Rural Sanitary Districts in addition to the Newport Urban Sanitary District."

II.—Limits of Jurisdiction :—

> " The whole of the Port of Newport (Order May 9th, 1883). By the Treasury Warrant, dated December 20th, 1847, the limits of the Port of Newport are defined as commencing at Redwick Pill, in the County of Monmouth, being the Western extremity of the Port of Chepstow, and continues along the coast of the said County to the River Rumney, and seaward to the middle of the Severn."

III.—Riparian Districts included (wholly or in part) in the Port Sanitary District:—

County Borough of Newport.
Magor Council District. Parishes—Nash, Goldcliff and Redwick.
St. Mellons Council District. Parishes—St. Brides, Peterstone and Rumney.

IV.—Apportionment of Expenses:—

The Urban Sanitary Authority contributes according to the rateable value of its district, and the Rural Sanitary Authorities contribute according to the rateable value of their riparian parishes.

The proportions contributed by the various Riparian Authorities towards expenses incurred by the Port Sanitary Authority for the year 1931 are as follows:—County Borough of Newport, 96.16 per cent.; Magor Rural District Council, 0.33 per cent.; and St. Mellons District Council, 3.51 per cent.

PORT OF NEWPORT.

The following particulars were supplied by the Newport Development Association, setting out special features of the Port.

The Alexandra Docks, owned by the Great Western Railway Company, is one of the finest Deep Water Ocean Liner Ports in the world, with a Sea Entrance Lock 1,000 feet long and 100 feet wide, which gives direct access to the Bristol Channel, and with few exceptions, the largest liners afloat can be accommodated at Newport with safety and ease of navigation. Large liners, some of which exceed 15,000 tons gross, load general cargo at Newport, and a regular service is maintained with Australia, New Zealand, South America, South Africa, India, China, Japan, Straits Settlements, Persian Gulf, Egypt, Red Sea, etc., also regular sailings between France, Belgium, Holland, Spain, Germany, etc.

The Dock Dimensions are—

Water Area	125 acres.
Depth of Water	33 feet.
Quayage	24,255 feet.

Transit Sheds and Warehouses—

Nine—with floor space of 714,483 square feet, and all rail connected.

Cold Store at Docks—

One—with floor space of 64,800 feet, and rail connected.

Appliances—

20 Coal Hoists.
71 Land Cranes.
1 Floating Crane for lifts up to 125 tons.
1 Weighbridge for weights up to 70 tons.
Numerous Grabs, Capstans, Shed Cranes, etc.

Ship Repairing—

Five Dry Docks in commission varying up to 785 feet long and 65 feet wide.

Total Exports and Imports of the Port—

In normal times exceed 8½ million tons yearly.

All steamship berths are rail connected, therefore rapid loading and discharging, with a minimum of handling and quick turn round of steamer is a special feature of the Port.

Storage accommodation at the Docks provides for over 12,000 railway wagons, and there are over 100 miles of railway sidings.

Every facility is provided for timber cargoes and a Timber Float of about 14 acres of deep water is connected with the Alexandra Dock, and same is rail connected.

Newport is the nearest South Wales Port to the Midlands and an ideal distributing Port for Monmouthshire, Herefordshire, Gloucester, Worcestershire, Birmingham and South Midlands. The population within 100 miles area exceeds 10 millions.

The River Usk, an important part of the Port, is a deep, broad and easily navigable river, and vessels carrying cargo up to 6,000 tons load and discharge at the various River Wharves. The width of the River at Newport Bridge is 400 feet and over 1,000 feet as it extends seawards.

The total Import and Export trade of the river exceed in normal times 1¼ million tons per annum.

I.—AMOUNT OF SHIPPING ENTERING THE PORT DURING THE YEAR 1931.

TABLE A.

	Number	Tonnage	Number inspected	Number reported to be Defective	Number of Vessels on which defects were remedied	Number of Vessels reported as having, or having had, during the voyage infectious disease on board
FOREIGN—						
Steamers ..	1,507	...	606	144	144	5
*Motor ...	22	...	4	1	1	...
Sailing Fishing	8	...	2	...	...	...
Total ...	1,537	1,909,492	612	145	145	5
COASTWISE—						
Steamers ...	2,359	...	594	108	108	9
*Motor ...	221	...	13	...	...	...
Sailing ...	347	...	80	6	6	...
Fishing ...	...	...	...	...	...	...
Total ...	2,927	1,090,562	687	114	114	9
Total Foreign and Coastwise	4,464	3,000,054	1,299	259	259	14

*Includes mechanically propelled vessels other than Steamers.

II.—CHARACTER OF TRADE OF PORT.

The Trade is chiefly Cargo, although there are excellent facilities for passenger traffic. The only passengers during the year were 82 " inwards " and 40 " outwards," all carried in cargo vessels.

TABLE B.

Passenger Traffic during 1931.

No. of Passengers	1st Class. 2nd Class. 3rd Class.	Transmigrants.
Inwards ...	Cargo Steamers Alien 29 British 53	... ...
Outwards ...	Alien 11 British 29	... ...

Cargo Traffic.

Exports.—Coal, Coke and Patent Fuel, Iron and Steel Rails, Sleepers, "Chairs" and Tie-rods, Locomotives and Railway Carriages, Corrugated and Blank Sheets, Tin and Blockplates, Machinery and Structural Ironwork, Copper Bars, Cement and General Merchandise.

Foreign Imports.—Machinery, Steel and Iron Bars and Billets, Pig-iron, Pitwood and Mining Timber, Timber and Deals, Glass and China Ware, Toys and Matches, Iron Ore, Manganese Ore, Phosphate and Cement, Wool, Wine and Spirits, Potatoes and Onions, Grain, and General Merchandise.

Table showing trade of Port for decennial periods extending over 30 years. Figures kindly supplied to me by the Secretary of the Newport Chamber of Commerce and H.M. Customs.

Foreign.			Coastwise.		
Year	Tons Entered	Tons Cleared	Year	Tons Entered	Tons Cleared
1901	971,953	1,517,118	1901	1,195,797	660,380
1911	1,739,898	2,349,408	1911	1,363,600	822,315
1921	1,126,194	1,506,358	1921	862,467	521,086
1931	1,909,492	2,060,448	1931	1,090,562	521,230

The total number of vessels that entered the Port during the year was 4,464. The tonnage of these vessels amounted to 3,000,054. The corresponding figures for 1930 were 5,109 and 3,313,261.

In the absence of figures showing the total volume of trade for the whole of the Port the following "value" figures relating to Foreign Trade only—kindly supplied by H.M. Customs—are of interest:—

	Imports. £	General Exports Excluding Coal. £	Coal Exports in Tons.	Coal Bunkers in Tons.
1921	2,889,297	3,155,229	1,981,487	437,145
1931	3,384,150	2,154,533	3,543,466*	410,264

* Value of Coal Exported during 1931, £2,691,946.

The Countries principally traded with are:—Irish Free State, Countries on Baltic Seaboard, France, Spain, Italy, Belgium, North Africa, South America, Japan, India and Russia.

III.—SOURCE OF WATER SUPPLY.

The drinking water of the Port is obtained from the Corporation of Newport, which obtains its supply from upland waters which are impounded in four Reservoirs, the water subsequently being filtered through pressure filters. An additional supply is now obtained from Talybont, which comes from the Brecon Beacons. This is passed through Gravity Low Pressure Filters and is finally chlorinated.

The water supply is shipped direct from the Town mains. There are no water boats.

IV.—INFECTIOUS DISEASES.

Information in reference to cases of Infectious Diseases on inward vessels and vessels requiring special attention is supplied by Pilots by arrangement with the Pilotage Board, Shipping Agents and H.M. Customs. The Preventive Officers on duty at the Alexandra Docks Entrance report any such information to the Port Sanitary Inspector or by phone to the office during office hours and to the Medical Officer of Health at his private residence at all other times night and day.

Fifty vessels arrived from Ports infected (or suspected to be infected) with Plague, Cholera, Yellow Fever or Small Pox during the year. Forty of them came via other British or Continental Ports. Six arrived direct from Lisbon, and two from Oran.

Thirty-seven cases of sickness, etc., occurred during the voyages to Newport or after arrival here, namely, Pneumonia 4, Venereal Diseases 4, Influenza 3, Chicken Pox 1, Mumps 1, Malaria 1, Dysentery 1, Rheumatism 1, Colds 3, Hæmorrhoids 1, Septic Diseases 2, Appendicitis 6, Accidents 7, other Diseases 2.

Special attention is paid to vessels arriving from abroad and to Coastwise vessels, in reference to which information has been received from the Medical Officer of Health in respect to sickness on board and "contacts." They are boarded by the Inspector and/or the Medical Officer of Health. They are inspected at the Locks or in the Docks or at the Wharves on the river.

Cases of Infectious Diseases are now removed to the Borough Isolation Hospitals in the Borough Ambulances, by arrangement between the two Authorities.

The disinfection of quarters is carried out under the supervision of the Port Sanitary Officials and infected bedding, clothing, etc., is either disinfected at the Borough Disinfecting Station or burnt.

The old Cefn Port Sanitary Authority's Hospital was demolished on July 31st, 1931.

Venereal Diseases.

Dr Ingram, the Medical Officer in charge of the Venereal Diseases Clinic at the Royal Gwent Hospital, has supplied me with the following particulars, re treatment of Seamen, who visited the Port during the year :—

	British Subjects, 1931				Foreigners		Total	
	White	Coloured	Total	Average past 3 years	1931	Average past 3 years	1931	Average past 3 years
No. of Patients Examined	60	11	71	110.3	24	53.0	95	163.3
Found to be suffering from :—								
Syphilis ...	15	2	17	37.7	8	26.0	25	63.7
Gonorrhœa ...	36	5	41	54.3	9	21.3	50	75.7
Soft Chancre ...	5	1	6	9.7	5	4.7	11	14.3
Total ...	56	8	64	101.7	22	52.0	86	153.7
Total Attendances ...	302	84	386	446.6	60	144.0	446	590.6

The nationality of the foreigners examined, with the number that proved positive in brackets, were :—Swedish 1 (1); German 1 (1); Norwegian 1 (1); Greek 4 (4); Italian 2 (2); Danish 2 (2); Dutch 2 (1); Finnish 2 (2); Estonian 4 (4); and Maltese 4 (4).

The book issued by the Ministry of Health is supplied to each seaman patient, to ensure continuity of treatment at other ports.

The attendances made per patient, arranged according to nationality, were as follows :—British (white) 5.0; (coloured) 7.6; and foreign 2.6.

The bacteriological examinations of rats in connection with Plague precautions, etc., is carried out at the Bacteriological Laboratories connected with the Welsh Medical School, Cardiff, and other bacteriological examinations are carried out at the Health Department.

TABLE C.

Cases of Infectious Sickness landed from Vessels.

Disease.	No. of cases. during 1931. Passengers.	Crew.	No. of Vessels concerned.	Average No. of cases for prev. 5 years.
Beri Beri	—	—	—	.2
Chicken Pox ...	—	1	1	.8
Influenza	1*	2	3	12.6
Malaria	—	1	1	1.8
Measles	—	—	—	.6
Mumps	—	1	1	—
Pneumonia	—	2	2	1.6
Scabies	—	—	—	.2
Scarlet Fever	—	—	—	.4
Tuberculosis	—	—	—	2.0
Typhoid Fever ...	—	—	—	1.0
Venereal Diseases ...	—	1	1	15.6
Total	1	8	9	36.8

* 2nd Officer's Wife.

The above figures include cases:—

1.—Removed to Allt-yr-yn Hospital—Chicken Pox, 1.
Woolaston House Infirmary—Pneumonia, 1.
Own Home—Mumps, 1.

2.—That were treated on board—Influenza, 3; Pneumonia, 1; Malaria, 1; and Venereal Disease, 1.

TABLE D.

Cases of Infectious Sickness occurring on vessels during the voyage but disposed of prior to arrival.

Disease.	No. of cases. during 1931. Passengers.	Crew.	No. of Vessels concerned.	Average No. of cases for prev. 5 years.
Beri Beri	—	—	—	.2
Chicken Pox ...	—	—	—	2.8
"Dinghy" Fever ...	—	—	—	.6
Dysentery	—	1	1	.2
Influenza	—	—	—	4.2
"Gastric" Fever ...	—	—	—	.2
"Low" Fever ...	—	—	—	.4
Malaria	—	—	—	9.4
Pneumonia	—	2	2	2.2
Scabies	—	—	—	.2
Scarlet Fever	—	—	—	.2
Small Pox	—	—	—	.4
"Spinal" Meningitis ...	—	—	—	.2
Tuberculosis	—	—	—	2.6
Typhoid Fever ...	—	—	—	2.4
Typhus Fever	—	—	—	.2
Venereal Diseases ...	—	3	3	5.4
Total	—	6	6	31.8

V.—MEASURES AGAINST RODENTS.

Special attention is paid to the work of detection of rodents on vessels, quays, wharves, warehouses, etc., in the Port and Borough. An experienced rat catcher is specially employed for this work.

Deratisation of vessels under the International Regulations for the prevention of Plague, etc., is carried out by private firms under the supervision of the Port Sanitary Officials. The chemicals used are Sulphur and Hydrocyanic Acid. The rat population around the docks has been materially reduced by special attention to warehouses and other places of harbourage, such as river banks, tips, etc.

RATS DESTROYED DURING 1931.

TABLE E.

(1) On Vessels.

Number of Rats	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Black	...	...	241	125	74	38	18	85	166	82	213	35	1077
Brown	...	...	...	...	...	...	...	..	..	...	...	...	...
Species not recorded ...	...	...	..	...	...	...	...	...	...	...	...	...	...
Examined	...	...	...	...	...	...	...	..	...	6	...	..	6
Infected with plague ...	...	...	...	...	...	..	...	...	...	...	...	...	...

TABLE F.

(2) In Docks, Quays, Wharves and Warehouses.

Number of Rats	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Black	...	...	...	...	...	...	...	...	...	...	...	...	...
Brown	16	43	...	18	47	...	20	...	14	39	49	17	263
Species not recorded ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Examined	...	...	...	...	...	...	...	...	...	...	...	...	...
Infected with plague ...	...	...	...	...	...	...	..	...	...	...	...	...	...

No Plague "infected" or "suspected" vessels arrived in the Port during 1931 (Table G.).

TABLE G.

Particulars relating to plague "infected" or "suspected" Vessels arriving in the Port during 1931.

Name of Vessel. 1	Date of Arrival. 2	Whether "infected" or "suspected." 3	Methods of Rat Destruction employed. 4	Number of dead Rats recovered. 5	Whether a Certificate of Deratisation was issued? 6	Remarks. 7
—	—	—	—	—	—	—

TABLE H.

Measures of Rat Destruction on Vessels from Plague infected Ports (other than those included in Table G) arriving in the Port during 1931, and number of Certificates issued in respect of such Vessels.

Total Number of Vessels arriving from plague infected Ports. 1	Number of such Vessels fumigated by SO_2 2	Number of Rats killed. 3	Number of such Vessels fumigated by HCN. 4	Number of Rats killed 5	Number of such Vessels on which trapping, poisoning, etc., were employed. 6	Number of Rats killed. 7	Number of such Vessels on which measures of Rat destruction *were not carried out.* 8	Number of Fumigation Certificates issued on Form "Port II."		Number of other Certificates issued. 11
								De-ratisation. 9	Exemption. 10	
11	—	—	—	—	—	—	11 5 Vessels examined. No evidence of Rats.	—	1	—

TABLE I.

Measures of Rat Destruction on Vessels (other than those included in Tables G. and H.) and Number of Certificates issued in respect of such Vessels during 1931.

Number of fumigated Vessels by SO_2 1	Number of dead Rats recovered. 2	Number of Vessels fumigated by HCN. 3	Number of dead Rats recovered. 4	Number of Vessels on which trapping, poisoning, etc., were employed. 5	Number of dead Rats recovered. 6	Number of Certificates issued on Form "Port II."		Number of other Certificates issued. 9
						Deratisation. 7	Exemption. 8	
50	707	9	178	18 Includes 1 which is also included in Col. 3—Fumigated HCN.	192 and 7 mice.	62	74	—

VI.—HYGIENE OF CREWS' SPACES.

Table J.

Classification of Nuisances.

Nationality of Vessel.	Number inspected during 1931.	Defects of original construction.	Structural defects through wear and tear.	Dirt, vermin and other conditions prejudicial to health.
British ...	858	4	59	149
Other Nations ..	441	—	28	105

General Inspection of Vessels.

20 per cent. of the 1,229 vessels inspected during the year had sanitary defects according to the present standard laid down by the Board of Trade. 21.5 per cent. of the foreign vessels were insanitary, compared with 19.1 per cent. of the British vessels. Of the vessels from Foreign Ports, 23.6 per cent. had sanitary defects and the Coastwise Vessels 16.5 per cent. The percentage of insanitary vessels was less than during the year 1930.

Nationality	Percentage with Sanitary Defects.						
	1931.	1930.	1929.	1928.	1927.	1926.	1925.
Belgian ...	18.2	11.9	6.6	7.0	3.9	12.0	4.0
British ...	**19.0**	**26.35**	**25.4**	**23.9**	**22.0**	**17.6**	**15.0**
Danish ...	—	2.27	4.9	2.6	7.7	—	2.2
Dutch ...	5.5	10.52	—	—	5.9	11.0	4.0
Estonian ...	20.0	9.09	—	—	—	—	—
Finnish ...	—	13.33	20.0	—	—	—	—
French ...	9.3	22.05	11.8	10.1	15.5	14.0	6.7
German ...	—	3.44	4.5	3.7	3.45	—	8.0
Greek ...	50.0	54.28	29.0	50.0	20.0	37.5	25.0
Italian ...	47.0	48.86	37.2	31.4	23.1	30.0	28.0
Japanese ...	25.0	8.33	7.1	14.3	—	—	—
Jugo-Slav. ...	—	33.33	—	—	—	—	—
Latavian ...	—	13.33	—	—	—	—	—
Norwegian ..	8.1	7.77	9.7	10.1	11.81	10.6	5.4
Spanish ...	51.0	50.75	37.5	37.0	41.1	35.3	31.7
Swedish ...	5.0	8.82	4.0	—	3.3	2.6	5.0

Also 1 Roumanian, 1 Russian, 3 Portuguese and 1 Finnish vessels were inspected without any defects being discovered.

The list of nuisances and defects dealt with shows that 63 per cent. of the nuisances were due to lack of care and sanitary supervision of the living quarters, whilst 37 per cent. were due to defective structural conditions. The great majority of both types of nuisances could have been avoided by stricter supervision of the crew and attention to minor structural defects. Dirty forecastles and berths accounted for 22.7 per cent., foul water clostes for 14 per cent., foul accumulations on deck, etc., 6 per cent., defective and dirty bunks in crews' quarters 5 per cent.

Lack of attention to fittings and structures, included leaky decks, defective ventilators, side ports, cable casings and hawse pipes, insufficient heating apparatus or defective stoves, etc., were responsible for a large proportion of the other insanitary conditions.

Although many of the above insanitary conditions are no doubt due to carelessness on the part of the crew, the "ultimate responsibility," as stated by the special Committee appointed by shipowners to enquire into the subject, "rests upon the master, and the degree of cleanliness is a criterion of the discipline of the ship."

MARINE HYGIENE.

The Mercantile Marine is still one of the great industries of this country and as the living conditions of seamen are closely connected with their work, we have to bear in mind when considering Marine Hygiene, the industrial welfare and the diseases associated with the Service.

My Report for 1930 contained a résumé of the efforts made to improve such matters on British vessels and a general survey of the present position. During the last six months of 1931 special investigations were made in reference to the situation of the crews' quarters (forward, aft and amidships), the provision of wash-houses and mess-rooms, the interference with the lighting of the living rooms by the placing of the bunks against the ships' sides, and the berthing of the crew in four-berth cabins.

295 British vessels were inspected in detail in reference to the above conditions. In 64 per cent. the crews' quarters were situated forward. In 33 per cent. their quarters were situated in the poop, and in 3 per cent. they were situated amidships. Only on 24 per cent. of them were the crew provided with mess-rooms, whilst only 40 per cent. had wash-houses for the use of the crew. The men's

bunks were placed against the ships' sides on 97 per cent. of the vessels. When British vessels are transferred to the Norwegians the berths have to be removed from the ships' sides in order that they may not interfere with the lighting of the men's quarters.

The 295 vessels were classified according to the date of construction and tonnage.

On vessels up to 500 tons register it was found that in 95 per cent. the crew were housed " forward." All the vessels built since 1916, with the exception of two, had the crews' quarters in the forecastle, whilst only 5.7 per cent. had mess-rooms and only 15.7 per cent. were provided with washhouses. The bunks were placed against the ships' sides in 90 per cent. There was a slight improvement in this direction on vessels built since 1924.

Vessels between 500 *and* 1,000 *tons register.*

On 50 per cent. the crews' quarters were situated forward.
On 40 per cent. the crews' quarters were situated aft.
On 10 per cent. the crews' quarters were situated amidships.

On the vessels built since 1924 the quarters were situated aft or amidships on 86 per cent. of them.

Mess-rooms were provided in only 13.3 per cent. and wash-houses in 33 per cent. of the vessels. The bunks were situated against the ships' sides in 97.8 per cent. of the vessels.

Vessels between 1,000 *and* 3,000 *tons register.*

On 47.3 per cent. the crews' quarters were situated forward.
Only 42 per cent. were provided with mess-rooms.
Only 55 per cent. were provided with wash-houses.

There was a considerable improvement in the vessels built since 1924 in respect to the provision of mess-rooms and wash-houses, and in 87 per cent. of the latter the quarters were situated aft, but in 96 per cent. of them the bunks were against the ships' sides.

Vessels of over 3,000 *tons register.*

On 36 per cent. the crews' quarters were situated forward.
35 per cent. of them were not provided with mess-rooms.
10 per cent. of them were not provided with wash-houses.

Whilst the bunks were placed against the ships' sides in 93 per cent. of the vessels.

There was some improvement in respect to the provision of wash-houses in vessels built since 1924, but no improvement in reference to mess-room accommodation.

It is evident, therefore, that the British regulations are quite inadequate to deal effectively with such simple matters as the lighting of the crews' quarters and the provision of mess-rooms and wash-houses for the use of the crew.

HEATING OF LIVING ACCOMMODATION ON TRAMP STEAMERS.

There has been little improvement in this direction during the last 40 years on the majority of ships. Steam heating has been provided by some of the more enterprising companies, but it has its drawbacks. It is not available at all times, and may therefore be lacking when most necessary during the cold season and in cold parts. Naval architects of Tramp Steamers appear to have paid very little attention to this subject.

It is very gratifying to find that the "Manning Committee," appointed by the Shipping Federation at the request of the Board of Trade, has made definite recommendations in this direction in view of the unsatisfactory state of affairs. They recommend the adoption of a hot water system of central heating, and state in their report: "Whilst this system is not at present in general use, it has been well tried, and the experience of those who have used it is entirely in its favour. The water should be supplied from boilers, heated by stoves in the two mess-rooms, and led through the sleeping accommodation by pipes. The stoves should have strong iron funnels, which should not pass through ventilators. The crew would themselves be responsible for supplying as much heat as they desired, and for seeing that the apparatus was in proper order. The Committee understand that there are several boilers on the market which are quite suitable for the purpose. There is no reason why the maintenance of this system should involve any more expense than the ordinary stove." It is recognised that this system would not be permissible on oil tankers, and that in such vessels steam heating would be relied upon."

When we consider the experimental and research work which has been carried out in connection with domestic heating in this country to improve our houses, the lack of interest in the subject on the part of the Naval Architects of the Tramp Steamers is very regrettable.

Ventilation of Living Quarters.

The requirements in this direction have not been materially altered for over a quarter of a century, and, in fact, arrangements for ventilation on some recent vessels have been less satisfactory than on the older vessels. Forecastles, poop-houses or cabins are required, under the Regulations, to have two ventilators, one serving as an inlet for the admission of fresh air, and the other as an outlet for the escape of impure air. On some recently constructed British ships only one deck ventilator is provided, and spaces over doors, louvres in doors, and openings in partitions are provided instead of the second ventilator. When the crews' quarters are closed during rough weather, etc., this system becomes very defective, especially so when the deck ventilator is closed by members of the crew owing to draughts and the coldness of the living rooms.

Valuable suggestions were made by the Manning Committee previously referred to on the subject of ventilation. They are worthy of careful consideration by Naval Architects responsible for the designing of the living quarters on new Tramp Steamers, as the system or lack of system, in vogue up to the present has been very unsatisfactory generally.

The above Committee recommend that natural ventilation should be entirely relied upon. That the bulkheads separating the sleeping compartments from one another and from the alleyway, other than the fore and aft bulkhead between the two sides, should stop short of the decks above and below, leaving a space of about three inches. A large uptake ventilator should be fixed inside the door at the forward end of the alleyway. The shaft of the ventilator should have a clear area of at least three square inches for each person accommodated as required by the Board of Trade. The ventilation above deck should be fitted with a large revolving cowl. A similar ventilation should be fitted at the after end of the alleyway as an intake ventilator. It is recommended that the cowl of this ventilator should be supplied with a detachable plate, fitted in the opening of the cowl, and having in the centre a circular opening of an area approximately one-eighth of that of the maximum area of the cowl opening. This will be found useful where there is much wind, in order to decrease the down-draught. An alternative arrangement would be to fit a diaphragm in the shaft of the ventilator capable of being revolved so as to diminish the aperture according to the strength of the wind to a minimum of one-eighth of the full aperture. This should be operated by a detachable handle kept in the possession of an officer. The intake ventilator should be cut off flush with the lower side of the deck, and there should be fitted below it a trunk extending the full width of the alleyway, and continued down the two sides of the alleyway to a distance of 18 inches below the deck. The trunk should be of steel, and for a ventilating shaft of 15 inches diameter should be two feet wide by six inches deep. The ends of the trunk should be opened so as to give the draught a downward direction. This is an essential part of the ventilating arrangements. It prevents a strong downward draught in the middle of the alleyway, and by making the section of the trunk of a larger area than the section of the ventilating shaft, the violence of the downward draught will be reduced. If the trunk is omitted, or is not carried down to the depth below the deck suggested, there is the probability that a cold current of air may be driven over the top of the bulkheads, which will defeat the operation of the plan.

The trunk should not be carried below the depth suggested in order not to reduce the width of the alleyway. It is believed that the warmth generated in the sleeping compartments by the occupants, and by the heating apparatus when in operation, will be sufficient to create an upward movement of the air which will pass out through the openings between the bulkheads and the deck below, whilst the fresh and cooler air will enter through the openings at the base of the bulkheads. The question of the artificial supply of moisture does not arise, unless excessive heat is created by the warming apparatus, which is not likely to occur under the plan recommended.

This ventilation is primarily for the sleeping accommodation. It will also help, however, towards the ventilation of the mess-rooms. In these rooms the principal ventilator will be the skylight. Mushroom ventilators should also be fitted to create ventilation when the skylight cannot be opened. The wash-rooms and W.C.s should also have independent mushroom or swan-neck ventilators.

The question of ventilation of ships in the tropics is a difficult one, especially when a ship is stationary, but it is thought that by the combined use of side scuttles, fitted with wind scoops, doors in the poop, companion ways, and cowl ventilators, a sufficient movement of air can be ensured to secure reasonable comfort. Windsails are also a useful additional means of ventilation. Probably the best method of keeping the air moving is by electric fans, but apparatus of this kind is easily damaged and is liable to ill-treatment, and it is, therefore, not recommend that they should be supplied."

Recommendations for the improvement of the hygiene of crews' quarters and of officers' quarters have frequently been made in previous reports, and it is unnecessary to repeat them here, but it is evident to me that the present regulations do not go far enough in securing reasonably satisfactory hygiene on board cargo vessels, and the matter requires further attention in many directions to raise our requirements up to the standard insisted upon by some of our competitors, especially as far better accommodation could undoubtedly have been provided on existing vessels at the same cost.

VII.—FOOD INSPECTION.

Particulars of the amount of food imported during 1931, and of the unsound food destroyed or otherwise disposed of so as not to be used for human food will be found in the Inspector's Report attached.

In this my last Report I wish again to thank the Collector of Customs and his " Preventive " Officers and the Clerk of the Pilotage Board for affording prompt and valuable assistance at all times in carrying out preventive work in connection with Infectious Diseases.

My sincere thanks are also due to the Newport Port Sanitary Authority for the courtesy and help I have always received from them; to the outdoor staff of this Department during a period extending over 36 years; and to Mr. Percy Jones, the Chief Clerk, and the other members of the indoor staff for valuable assistance in the administrative work.

I have the honour to be,
Your obedient Servant,
J. HOWARD JONES,
Medical Officer of Health.

INSPECTOR'S REPORT.

Port Sanitary Offices,
Market Buildings,
Newport.

To the Chairman and Members of the Port Sanitary Committee.

Ladies and Gentlemen,

I beg to submit my Annual Report for the year 1931 on the following subjects :—

I.—Inspection of Vessels.
II.—Rat Destruction.
III.—Diseases of Animals Acts.
IV.—Importation of Parrots.
V.—Vessels from Infected Areas.
VI.—Food Inspection.

INSPECTION OF VESSELS.

The duties are carried out under the provisions of the Public Health Act, 1875; Section 110 enacts that any ship or vessel when within the district of a Local Authority shall be subject to the jurisdiction of that Authority in the same manner as if it were a house within such district. The powers of a Port Sanitary Authority are strictly limited to the elimination of nuisances in living quarters; nothing can be done under the Public Health Acts to enforce the reform of the quarters themselves.

Amongst the structural defects found were the following:—

Insufficient lighting and ventilation of crews' quarters. The system of lighting is in some cases quite inadequate and is rendered more so by the placing of cots or bunks in tiers against the ships' sides and thereby obstructing free access of the light provided by side ports, to all parts of the living spaces. Also by the use of dark coloured paint instead of white when painting out the spaces. There is no definite rule laid down as to the method to be adopted for the ventilating of crews' spaces. The Board of Trade recommend that there should be not less than two ventilators for each living space, one to serve as an inlet for the admission of fresh air and the other to act as an outlet. Many quarters are provided with only one ventilator, which during cold weather is often found to be closed up on account of the discomfort caused by the draught.

Insufficient heating apparatus also tends to lower the standard of ventilation and where steam radiators are provided in quarters it is sometimes found that the steam had been turned off whilst the vessel was in port.

Hatchways in floors and other entrances in living quarters leading to peaks, lockers or storerooms, owing to which ship stores, gear, etc., have to be taken through the men's quarters.

Insufficient table and seating accommodation in quarters.

Insufficient storage for food; this applies especially to weekly boats, where each member of the crew provides his own provisions.

Dampness in quarters caused by condensation of moisture of bare iron surfaces and from leakage through decks, side ports and hawse pipes.

Water closet accommodation communicating directly with living quarters or with doors opening against or directly opposite to the living quarters or in enclosed alleyways which are often imperfectly ventilated.

Particulars of the crew accommodation on 295 British vessels arriving at Newport were taken over a period of six months. The following Table indicates the position of the crews' quarters and the bunks therein, the number of vessels on which mess-rooms and wash-houses were provided for the use of the crew, and the nett tonnage and period of construction of the vessels.

ACCOMMODATION FOR THE CREW.

Nett Tonnage of Vessels	Period of Construction	Number of Vessels Inspect'd	Position of Crew Space			Provided with		Bunks Placed		Vessels provided with Four Berth Rooms
			Forward	Aft	Amidships	Mess Rooms	Wash Houses	On Ships Sides obstru't-ing Lights	So as not to obstruct Light	
150 to 500	1900-1916	46	42	4	—	1	2	44	2	—
	1916-1920	27	25	—	2	2	2	26	1	—
	1920-1924	24	24	—	—	—	2	22	2	—
	1924-1931	19	19	—	—	2	7	15	4	—
500 to 1,000	1900-1916	12	7	5	—	2	4	11	—	1
	1916-1920	13	8	2	3	2	3	12	1	—
	1920-1924	13	6	6	1	2	5	13	—	—
	1924-1931	7	1	5	1	—	3	7	—	—
1,000 to 3,000	1900-1916	25	19	6	—	4	7	23	2	1
	1916-1920	11	5	6	—	7	7	11	—	—
	1920-1924	18	9	9	—	5	10	18	—	—
	1924-1931	22	3	19	—	16	18	21	1	—
Over 3,000	1900-1916	17	8	9	—	5	16	16	—	1
	1916-1920	14	5	9	—	8	12	14	—	—
	1920-1924	11	2	8	1	5	10	11	—	—
	1924-1931	16	5	9	2	10	15	13	—	3
	Totals	295	188	97	10	71	123	277	13	6

During the year 1,299 vessels were inspected; of these 858 were British and 441 were Foreign. 259 vessels—164 British and 95 Foreign—were found to have nuisances or sanitary defects on board; 258 informal and one written notice were served on these vessels. 537 re-visits were made to see that notices had been complied with and to vessels having had sickness on board and to those arriving from infected areas.

CLASSIFICATION OF NUISANCES AND DEFECTS.

Nationality of Vessels.	Number Inspected during 1931.	Defects of Original Construction.	Structural Defects through Wear and Tear.	Dirt, Vermin and other Conditions Prejudicial to Health.
British ...	858	4	59	149
Other Nations ..	441	—	28	105
Totals ...	1,299	4	87	254

VESSELS INSPECTED—FOREIGN AND COASTWISE.

	VESSELS			NUISANCES AND DEFECTS			
	Number Inspected	Number found to have Defects on Board	Number on which Notices were Served	Number Found and Remedied	Dirt, Vermin and other Conditions prejudicial to Health	Structural Defects through Wear and Tear	Defects of Origi'al Con-structi'n
From Foreign—							
British Steamers ...	302	75	75	96	62	32	2
British Motor Vessels ...	1	—	—	—	—	—	—
British Sailing Vessels ...	—	—	—	—	—	—	—
British Fishing Vessels ...	—	—	—	—	—	—	—
Foreign Steamers ...	304	69	69	102	78	24	—
Foreign Motor Vessels ...	3	1	1	1	1	—	—
Foreign Sailing Vessels ...	—	—	—	—	—	—	—
Foreign Fishing Vessels ...	2	—	—	—	—	—	—
Total from Foreign ...	612	145	145	199	141	56	2
From Coastwise—							
British Steamers ...	464	83	83	109	81	26	2
British Motor Vessels ...	12	—	—	—	—	—	—
British Sailing Vessels ...	79	6	6	7	6	1	—
British Fishing Vessels ...	—	—	—	—	—	—	—
Foreign Steamers ...	130	25	25	30	26	4	—
Foreign Motor Vessels ...	1	—	—	—	—	—	—
Foreign Sailing Vessels ...	1	—	—	—	—	—	—
Foreign Fishing Vessels ...	—	—	—	—	—	—	—
Total from Coastwise ...	687	114	114	146	113	31	2
Total Foreign and Coastwise ...	1,299	259	259	345	254	87	4

NUMBER AND NATIONALITY OF VESSELS INSPECTED.

Nationality	Number Inspected	Number found to have Nuisances and Defects on Board	Number of Nuisances and Defects Found and Remedied	Dirt, Vermin and other Conditions Prejudicial to Health	Structural Defects through Wear and Tear	Defects of Original Construction
American	1	—	—	—	—	—
Belgian	33	6	9	4	5	—
British	858	164	212	149	59	4
Danish	16	—	—	—	—	—
Dutch	18	1	1	1	—	—
Estonian	10	2	3	3	—	—
Finnish	1	—	—	—	—	—
French	129	12	22	17	5	—
German	13	—	—	—	—	—
Greek	14	7	12	8	4	—
Italian	77	36	48	42	6	—
Japanese	12	3	3	3	—	—
Jugo-Slav.	3	—	—	—	—	—
Latvian	4	—	—	—	—	—
Norwegian	37	3	4	3	1	—
Portuguese	3	—	—	—	—	—
Roumanian	1	—	—	—	—	—
Russian	1	—	—	—	—	—
Spanish	47	24	30	23	7	—
Swedish	21	1	1	1	—	—
Totals	1,299	259	345	254	87	4

NUISANCES AND DEFECTS DEALT WITH.

Dirty forecastles and berths	101
Dirty or defective fresh water receptacles	3
Foul water closets	65
Damp quarters caused by leaky decks, etc.	10
Defective ventilators, cowls, shutes, etc.	12
Defective side ports, deck prisms, etc.	90
Defective bulkheads and floors in crews' spaces	2
Foul accumulations on decks and quays	71
Defective and dirty food lockers	4
Defective cable casings and hawse pipes in crews' spaces	4
Defective and dirty bunks in quarters	22
Dirty provisions storeroom	1
Insufficient heating apparatus, defective stoves, etc.	36
Defective entrance doors to living spaces	2

Defective drainage in wash-houses, etc.	3
Verminous berths and quarters	12
Dirty messroom	1
Defective water closets, pans, etc.	5
Dirty or verminous beds destroyed	802
Dirty fowl pen	1

RATS AND MICE DESTRUCTION ACT, 1919.

Public Heath (Deratisation of Ships) Regulations, 1929.

During the year, measures were taken on 141 vessels and the river banks, wharves, warehouses, sidings and private premises within the district were subject to periodical inspection and baiting.

59 vessels were fumigated; 50 by means of burning sulphur and 9 with hydro-cyanic acid (HCN). 885 rats were afterwards found dead on these vessels. Traps and poison baits were placed on 18 vessels; 192 rats and 7 mice being killed.

RAT DESTRUCTION.

Method of Destruction	NUMBER OF RATS DESTROYED								Total Number of Rats Killed
	On Vessels				Ashore				
	Brown		Black		Brown		Black		
	M	F	M	F	M	F	M	F	
Fumigation by H.C.N.	..	...	46	132	...	...	...	...	178
Fumigation by Sulphur	...	...	244	463	...	...	...	...	707
Trapping	...	...	53	109	2	5	...	...	169 + 7 Mice
Poison Bait ...	...	..	11	19	60	178	...	...	268
Dogs and Ferrets ...	...	...	...	...	6	12	...	...	18
All Methods ...	...	...	354	723	68	195	...	...	1,340 + 7 Mice

Poison Baits Laid :—5,020 Ashore, 165 on Vessels. Total 5,185.

DISEASES OF ANIMALS ACTS.

The various Orders under the Diseases of Animals Acts, with reference to the importation of canine and other animals have been enforced during the year. 64 dogs were imported directly or indirectly and one vessel arrived from a scheduled country (indirectly) with a goat on board. All the vessels were visited regularly during their stay in port to ensure that the requirements of the Orders were observed.

THE PARROTS (PROHIBITION OF IMPORT) REGULATIONS, 1930.

5 vessels, each with one parrot on board, arrived during 1931. The requirements of the Regulations were carried out; all the parrots being re-exported.

VESSELS FROM INFECTED AREAS.

50 vessels arriving from infected areas were inspected. 11 were from Plague infected ports, and 5 of these were examined for evidence of rat infestation. A Deratisation Exemption Certificate was issued to one of these vessels.

THE PUBLIC HEALTH (REGULATIONS AS TO FOOD) ACT, 1907.

THE PUBLIC HEALTH (IMPORTED FOOD) REGULATIONS, 1925.

AMOUNT OF FOOD IMPORTED DURING 1931.

		Approx. Weight.
Apples	236,827 Bags	12,115 Tons
Beans	30 Bags	3 ,,
Cabbage	40 Bags	2 ,,
Cocoa Butter	40 Bales	4 ,,
Cream	350 Cases	3 ,,
Fish (Canned)	570 Cases	8 ,,
Flour	35,240 Sacks	2,203 ,,
Glucose	600 Bags	30 ,,
Glucose	15 Casks	5 ,,
Macaroni	1,927 Cases	37 ,,
Maize Starch	400 Sacks	20 ,,
Margarine	100 Cases	5 ,,
Meat (Canned	2,559 Cases	35 ,,
Meat (Frozen)	2,627 Carcases	66 ,,

		Approx. Weight.
Milk (Condensed)	39,417 Cases	643 Tons
Milk (Condensed)	107 Casks	32 ,,
Milk (Evaporated)	285 Cases	6 ,,
Milk (Powder)	221 Crates	8 ,,
Olein	7 Barrels	3 ,,
Onions	3,315 Bushels	91 ,,
Pearl Barley	40 Bags	2 ,,
Peas	1,405 Bags	64 ,,
Potatoes	88,372 Bags	4,419 ,,
Rice	309 Bags	22 ,,
Semolina	80 Bags	4 ,,
Sugar	1,300 Bags	130 ,,
Tapioca	79 Bags	4 ,,
Vegetables (Canned)	88 Cases	3 ,,
Vegetable Fat	100 Cases	2 ,,
Wheat	—	23,817 ,,
Other Cereals	—	6,094 ,,

UNSOUND FOOD DESTROYED OR OTHERWISE DEALT WITH SO AS NOT TO BE USED FOR HUMAN FOOD.

		Approx. Weight.
Flour	298 Sacks	37 Tons
Potatoes	313 Bags	15½ ,,
Wheat	16 Bushels	½ ,,

THE PUBLIC HEALTH (IMPORTED MILK) REGULATIONS, 1926.

No milk to which the above Regulations apply was imported during the year 1931.

THE PUBLIC HEALTH (PRESERVATIVES, ETC., IN FOOD), REGULATIONS, 1925-27.

Two samples, one of Canned Peas and the other of Vegetable Fat were submitted to the analyst for analysis as to the presence of preservatives. Both samples were found to be free from preservatives.

I am, Ladies and Gentlemen,
Your obedient Servant,
R. M. SCORRER,
Senior Port Sanitary Inspector.